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16

17 IN THE UNITED STATES DISTRICT COURT
18 CENTRAL DISTRICT OF CALIFORNIA

19 ENTROPIC COMMUNICATIONS, LLC,

20 Plaintiff,

21 v.
22

23 DISH NETWORK CORPORATION;
24 DISH NETWORK LLC; DISH
NETWORK SERVICE, LLC; AND
25 DISH NETWORK CALIFORNIA
26 SERVICE CORPORATION,

27 Defendants.
28

Case No. 2:23-cv-01043-JWH-KES

**MEMORANDUM OF POINTS AND
AUTHORITIES IN SUPPORT OF
DEFENDANTS DISH NETWORK
CORPORATION, ET AL.'S RULE
12(b)(6) MOTION TO DISMISS
UNDER 35 U.S.C. § 101**

Hearing Date: June 9, 2023
Hearing Time: 9:00 a.m.
Courtroom: 9D
Judge: Hon. John W. Holcomb

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I. INTRODUCTION

The claims challenged in this motion mirror those that courts have repeatedly invalidated for claiming patent-ineligible subject matter. Many district courts have recognized, and the Federal Circuit has confirmed, that claims such as these are ripe for resolution at the Rule 12 stage, and the same result should follow here. Save for the bare legal conclusion that these patents are “directed to patent-eligible subject matter pursuant to 35 U.S.C. § 101,” Entropic fails to plead any facts supporting the supposed eligibility of its patents. Dkt. 1 at ¶¶ 246, 382. Nor could it. These patents cover the abstract ideas of authenticating and admitting devices into a network (U.S. Patent No. 10,257,566 (“’566 patent”)) and receiving, aggregating and transmitting data (U.S. Patent No. 8,228,910 (“’910 patent”)). Further, the specification of each patent evinces the conventionality of the claimed components, and no factual determinations preclude invalidating the patents at this stage.

The challenged claims of the ’566 and ’910 patents are invalid as a matter of law under the Supreme Court’s decision in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 227 (2014). Defendants thus respectfully move this Court to dismiss Counts VI and X of Plaintiff’s Complaint with prejudice under Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim upon which relief may be granted.

II. BACKGROUND

Entropic filed suit against four DISH defendants on February 10, 2023, alleging infringement of twelve patents, including the ’566 and ’910 patents. *See* Dkt. 1.

A. The ’566 Patent

The ’566 patent¹ is titled “Broadband Local Area Network” and purports to address the need for a system that can connect multiple pieces of customer premise equipment (“CPEs”) via existing coaxial cables in a building, thereby allowing

¹ Entropic has asserted two patents ending in ’566, and refers to U.S. Patent No. 10,257,566 as the “’7,566 patent” in its Complaint. Because the other ’566 patent (U.S. Patent No. 8,320,566) is not subject to this motion, DISH uses the standard three-digit naming convention (’566) for the ’7,566 patent throughout this motion.

1 communication across the CPEs. Dkt. 1-11, '566 patent at 4:11-16. The '566 patent's
 2 alleged solution to this problem is a "Broadband Coaxial Network ('BCN') network
 3 formed by a plurality of common coaxial network elements that may include passive
 4 splitters and coaxial network nodes." *Id.* at 4:23-29.

5 Each node has a modem, allowing communications with other modems on the
 6 network. *Id.* at 4:23-29. One node assumes the role of a Network Controller ("NC"),
 7 either by assignment or by dynamic determination according to network rules. *Id.* at
 8 11:27-34. The NC adds other nodes to the network and "establishes the best
 9 modulation and other transmission parameters that [are] optimized and periodically
 10 adapted to the channel between each pair" of modems. *Id.* at 4:35-42.

11 Notably, the alleged invention of the '566 patent does not require any
 12 specialized hardware. The independent claims of the '566 patent recite only generic
 13 components, all of which were conventional at the time of filing: "communication
 14 circuit," "transceiver," "controller," and a "node," which the '566 patent explains are
 15 existing devices such as "cable converter boxes, televisions, video monitors, cable
 16 modems, cable phones, audio video receivers, set-top boxes (STBs) and video game
 17 consoles." *Id.* at 1:48-52.²

18 The '566 patent recites 20 claims, of which claims 1, 11, and 19 are
 19 independent. Entropic asserts only claim 11 in its Complaint, but all independent
 20 claims of the '566 patent recite similar limitations and claim the same abstract idea.
 21 DISH lists the independent claims of the '566 patent in the table below, arranged to
 22
 23
 24
 25

26 ² A "BCN" modem, while not claimed, is not special hardware either. It is simply
 27 described as "a device that communicates across one or more of multiple RF channels
 28 where the communications over each RF channel by the various devices is divided by
 time, where each device transmits in a different time slot, typically referred to as a
 time division multiple access (TDMA) communication." '566 patent at 6:38-45.

place similar limitations in the same row. For purposes of this motion, claim 11 is representative of the independent claims in the '566 patent.³

Claim 1	Claim 11	Claim 19
1. A communication circuit comprising:	11. A communication circuit comprising:	19. A communication circuit comprising:
a transceiver operable to communicate in a coaxial cable network (CCN);		
a controller that is operable to, at least:	a controller that is operable to, at least:	a controller that is operable to, at least:
transmit first information on the CCN, the first information comprising information indicating when admission messages for requesting admission to the CCN may be transmitted on the CCN;	transmit first information on a Coaxial Cable Network (CCN), the first information comprising information indicating when admission messages may be transmitted on the CCN;	transmit first information on a Coaxial Cable Network (CCN) in a general beacon packet for the CCN, the first information comprising information indicating when admission messages may be transmitted on the CCN for admission to the CCN;
receive an admission request message from a new node for admission to the CCN;	receive an admission message from a new node;	receive an admission message from a new node;
if the received admission request message is correctly received and the new node is authorized to join the CCN, then perform an admission procedure with the new node;	if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node by, at least in part, operating to:	if the received admission message is correctly received and the new node is authorized to join the CNN, then perform an admission procedure with the new node; and

³ Where claims are “substantially similar and linked to the same abstract idea,” courts may look to representative claims in a § 101 analysis. *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1349 (Fed. Cir. 2014); *see also Phoenix Licensing, L.L.C. v. Consumer Cellular, Inc.*, No. 2:16-cv-152-JRG-RSP, 2017 WL 1065938, at *8-9 (E.D. Tex. Mar. 8, 2017) (invalidating 974 claims after analyzing only a few “representative claims” where the other claims were “substantially similar” and “linked to the same abstract idea”).

Claim 1	Claim 11	Claim 19
probe a communication link of the CCN connecting the communication circuit to the new node; and	probe a communication link of the CCN connecting the communication circuit to the new node; and	
adapt transmission parameters for the communication link based, at least in part, on the probe.	adapt transmission parameters for the communication link based, at least in part, on the probe.	
		if the received admission message comprises errors, then transmit second information on the CNN, the second information comprising information indicating when a next admission message may be transmitted on the CNN.

B. The '910 Patent

The '910 patent describes a purported improvement in transmitting data packets. Transmitting data in packets was known in the prior art, and the patent recognizes that each packet has its own “overhead information, including identifiers, source and destination addresses, and error control fields,” which “reduces the availability of network bandwidth for user data.” Dkt. 1-19, '910 patent at 1:30-37.

The '910 patent purports to reduce this overhead information. When a network node receives two or more packets with the same “aggregation identifier,” the node aggregates those packets together and transmits the aggregated packet to a common destination node. *Id.* at 1:41-47. Transmitting an aggregated packet instead of each original packet requires less overhead information. *Id.* at 2:1-3.

The '910 patent also describes two known error-checking features. *Id.* at 6:1-4. The first is a checksum, where the receiving node “calculates the checksum of [the]

1 received aggregation header and compares it to the value of the checksum in the
2 received header.” *Id.* at 6:5-8. “If the checksums do not match, the packet is
3 dropped.” *Id.* at 6:8-9. The second feature is a frame check sequence, which is
4 included in packets formatted under the conventional Ethernet standard. *Id.* at 3:49-
5 52. The ’910 patent describes how to forward the original frame check sequence bits
6 from each packet without modification, allowing each received packet to be checked
7 for errors “instead of dropping the entire set of aggregated packets.” *Id.* at 6:10-16.

8 The ’910 patent has three claims, and all three are independent claims and
9 require: (1) receiving packets, (2) identifying packets with the same aggregation
10 identifier, (3) forming an aggregate packet, and (4) transmitting the aggregate packet
11 to a destination. *Id.* at Claims 1-3. System claim 3 is representative:

- 12 3. A system for transmitting digital data over a network comprising:
13 a transceiver adapted to receive a plurality of packet data
14 units; and
15 a packet aggregation module for identifying at least two of
16 the plurality of packet data units that have a same destination node
17 and for forming an aggregate packet from the at least two of the
18 plurality of packet data units;
19 wherein the transceiver is adapted to transmit the aggregate
20 packet to at least one destination node; and
21 wherein the packet aggregation module identifies the same
22 destination node by identifying a same aggregation identifier.

23 Claims 1 and 2 are method and computer readable media counterparts of claim 3, and
24 each adds limitations related to the known error checking features described above.

25 The specification indicates that all claimed components are conventional. The
26 transceiver “can be any device that transmits and receives digital data.” *Id.* at 3:14-
27 15. The “packet data units” can be Ethernet packets or “any type of data packet.” *Id.*
28 at 5:46-50. And the “functionality of these modules . . . can be implemented by any
combination of hardware and software,” where the processor “may be any type of
general or specific purpose processor” and the memory may be “any [] type of
computer readable medium.” *Id.* at 3:13-20, 3:29-35.

1 **III. LEGAL STANDARD**

2 **A. Motions To Dismiss Under Rule 12(b)(6)**

3 Under Fed. R. Civ. P. 12(b)(6), a district court must dismiss a complaint if it
4 fails to state a claim upon which relief can be granted. To survive a Rule 12(b)(6)
5 motion to dismiss, the plaintiff must allege “enough facts to state a claim to relief that
6 is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). The
7 Federal Circuit has “repeatedly recognized that in many cases it is possible and proper
8 to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion.”
9 *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373 (Fed. Cir. 2016); *Hawk*
10 *Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1356 (Fed. Cir. 2023).

11 **B. Patent-Ineligibility Under 35 U.S.C. § 101**

12 To be patentable under § 101, a claim must be directed to one of four eligible
13 subject matter categories: “new and useful process, machine, manufacture, or
14 composition of matter.” 35 U.S.C. § 101. “Claims that fall within one of the four
15 subject matter categories may nevertheless be ineligible if they encompass laws of
16 nature, physical phenomena, or abstract ideas.” *Digitech Image Techs., LLC v. Elecs.*
17 *for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) (citing *Diamond v.*
18 *Chakrabarty*, 447 U.S. 303, 309 (1980)). Abstract ideas are patent ineligible because
19 a monopoly over these ideas would preempt their use in all fields. *See Bilski v.*
20 *Kappos*, 561 U.S. 593, 611-12 (2010). In other words, “abstract intellectual concepts
21 are not patentable as they are the basic tools of scientific and technological work.” *Id.*
22 at 653 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

23 Determining whether a patent claim is impermissibly directed to an abstract
24 idea involves two steps. First, the court determines “whether the claims at issue are
25 directed to a patent-ineligible concept.” *Alice*, 573 U.S. at 208. Second, if the claim
26 contains an abstract idea, the court evaluates whether there is “an ‘inventive
27 concept’—*i.e.*, an element or combination of elements that is sufficient to ensure that
28

1 the patent in practice amounts to significantly more than a patent upon the ineligible
2 concept itself.” *Id.* at 217 (internal quotations and citations omitted).

3 **1. Alice Step One**

4 At the first step of the *Alice* framework, courts look to the claim’s “character
5 as a whole” and determine its “focus” to determine whether it is directed to an abstract
6 idea. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351, 1353 (Fed. Cir.
7 2016) (internal quotation marks omitted). The abstract idea identified at step one need
8 not account for every claim limitation; otherwise, there would be no need for step
9 two. *See Alice*, 573 U.S. at 217 (explaining that courts consider whether “additional
10 elements” transform the abstract idea).

11 The Federal Circuit has further explained that “[i]nformation as such is an
12 intangible. Accordingly, we have treated collecting information, including when
13 limited to particular content (which does not change its character as information), as
14 within the realm of abstract ideas.” *Elec. Power*, 830 F.3d at 1353 (internal citations
15 omitted). Similarly, “analyzing information by steps people go through in their
16 minds, or by mathematical algorithms, without more,” are “mental processes within
17 the abstract-idea category.” *Id.* at 1354 (collecting cases). Further, claims that invoke
18 generic computer components instead of reciting specific improvements in computer
19 capabilities are abstract under this first step. *See Enfish, LLC v. Microsoft Corp.*, 822
20 F.3d 1327, 1335-36 (Fed. Cir. 2016).

21 **2. Alice Step Two**

22 Transformation of an abstract idea into a patent-eligible application under the
23 second step of the *Alice* framework “requires ‘more than simply stat[ing] the [abstract
24 idea] while adding the words ‘apply it.’” *Alice*, 573 U.S. at 221 (quoting *Mayo*
25 *Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 72 (2012)) (modifications
26 in original). A patent-eligible claim must contain an inventive concept, meaning it
27 must recite a technology-specific solution to a technology-specific problem. *E.g.*,
28

1 *Bascom Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1351
2 (Fed. Cir. 2016).

3 On the other hand, claim limitations that implement an abstract idea using
4 “generic computer components” or “well-understood, routine, conventional
5 activities” are not sufficient. *Alice*, 573 U.S. at 225; *see also* *Intell. Ventures I LLC*
6 *v. Cap. One Bank (USA)*, 792 F.3d 1363, 1371 (Fed. Cir. 2015) (“Steps that do nothing
7 more than spell out what it means to ‘apply it on a computer’ cannot confer patent-
8 eligibility.”). Further, if a claim could be performed in the human mind, or by a
9 human using pen and paper, it is not patent-eligible. *CyberSource Corp. v. Retail*
10 *Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011). A claim is also not
11 meaningfully limited if it includes only token or insignificant pre- or post-solution
12 activity—such as identifying a relevant audience, category of use, field of use, or
13 technological environment. *Mayo*, 566 U.S. at 77-78; *Bilski*, 561 U.S. at 610.

14 **IV. ARGUMENT**

15 **A. The ’566 Patent’s Claims Are Patent Ineligible**

16 The claims of the ’566 patent at issue here fail at both steps in the *Alice*
17 framework. The claims are directed to the abstract idea of authentication and
18 admission of a device (or node) into a network. None contain an inventive concept
19 “sufficient to ensure that the patent in practice amounts to significantly more than a
20 patent upon the ineligible concept itself.” *See Alice*, 573 U.S. at 225-26.

21 **1. Step One: The Claims Are Directed to an Abstract Idea**

22 Step one of the *Alice* framework requires an examination of the “focus” of the
23 claim, or its “character as a whole” to determine whether the claim is directed to an
24 abstract idea. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018).
25 As indicated by the full text of the three independent claims 1, 11, and 19 of the ’566
26 patent set forth *supra* in section II, the patent purports to claim the following basic
27 process: (1) sending out a schedule for when new devices may send admission
28 messages; (2) receiving admission messages from new devices; (3) determining

1 whether the new device is authorized to join the network (i.e., authentication); and (4)
2 performing an “admission procedure” to admit the new device to the network. The
3 “focus” of these claims is unambiguously the abstract idea of authentication and
4 admission of authorized devices into a network.

5 The Federal Circuit has repeatedly invalidated claims directed to a similar
6 idea—the idea of authenticating and then permitting access to information or
7 resources. In *Prism Technologies LLC v. T-Mobile USA, Inc.*, for instance, the
8 Federal Circuit found that claims directed to “(1) receiving identity data from a device
9 with a request for access to resources; (2) confirming the authenticity of the identity
10 data associated with that device; (3) determining whether the device identified is
11 authorized to access the resources requested; and (4) if authorized, permitting access
12 to the requested resources” were directed to an abstract idea. 696 F. App’x 1014,
13 1017 (Fed. Cir. 2017). Similarly, in *SmartFlash LLC v. Apple Inc.*, the Federal Circuit
14 found claims for restricting access to data pending payment validation or other
15 “access/use rules” to be directed to the abstract idea of “conditioning and controlling
16 access to data based on payment.” 680 F. App’x 977, 982-83 (Fed. Cir. 2017).

17 District courts have followed suit. In *Strikeforce Technologies, Inc. v.*
18 *SecureAuth Corp.*, this Court found—and the Federal Circuit affirmed—that claims
19 reciting authentication of a request for sensitive information via a separate
20 “authentication channel” were similarly directed to the abstract idea of permitting
21 restricted access to resources. No. LA CV17-04314 JAK (SKx), 2017 WL 8808122,
22 at *4-5 (C.D. Cal. Dec. 1, 2017), *aff’d*, 753 F. App’x 914 (Fed. Cir. 2019). In *Smart*
23 *Authentication IP, LLC v. Electronic Arts Inc.*, the Northern District of California held
24 that a claim was directed to an abstract idea when reciting a method for
25 “authenticating a user in more than one way over multiple electronic mediums but
26 does not provide any ‘unconventional, patentable combination.’” 402 F. Supp. 3d
27 842, 852-53 (N.D. Cal. 2019) (citing *Cal. Inst. of Tech. v. Hughes Commc’ns, Inc.*,
28 59 F. Supp. 3d 974, 980 (C.D. Cal. Nov. 2014)).

1 The “focus” of the ’566 patent’s claims is not meaningfully distinct from the
2 claims in these cases. The claims recite receiving requests for access (the “admission
3 request message”) to a network whose access is restricted (the CCN network),
4 authenticating whether the requesting device is authorized to access the network
5 (“if . . . the new node is authorized to join the CNN [*sic*]”); and granting the device
6 access if it is so authorized (“perform an admission procedure”). Further, “merely
7 limiting the field of use of the abstract idea to a particular existing technological
8 environment”—here, coaxial cable networks—does not “render the claims any less
9 abstract.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258-59
10 (Fed. Cir. 2016). Thus, at their core, these claims encompass little more than an
11 abstract idea that courts have found invalid time and time again.

12 The claim elements “lack[] specificity and amount[] to generalized steps using
13 generic computer functionality,” which confirms the claims are directed to an abstract
14 idea. *Smart Authentication*, 402 F. Supp. 3d at 852. Claims 1, 11, and 19 each recite
15 that a “controller” must determine that a new device is “authorized to join the CNN
16 [*sic*],” but do not specify how the recited controller determines that a device is
17 authorized. Similarly, the claims each recite that the controller is to “perform an
18 admission procedure with the new node” if the controller determines that the new
19 node is authorized, but do not specify how such an admission procedure is performed.
20 Claims 1 and 11 appear to include a **part** of the recited admission procedure,⁴ reciting
21 “prob[ing] a communication link” between the controller and the new node and
22 “adapt[ing] transmission parameters for the communication link based, at least in part,
23 on the probe.” But the claims fail to specify how the link is “probed,” what
24 “transmission parameters”⁵ are “adapted,” or how that adaptation is done. Claim 19
25

26 ⁴ The specification also states that probing a communication link may be part of an
27 admission procedure. ’566 Patent at 11:59-12:20.

28 ⁵ The specification fails to provide any definition or description of the term
“transmission parameters,” such that the term could broadly encompass almost
anything related to transmissions between the two devices.

1 also lacks those details about the admission procedure, and simply recites re-
2 attempting communications with the new node if the first attempt fails.

3 Because the '566 patent's claims are directed to authentication and admission
4 of authorized devices, and because the patent does not claim a "particular way of
5 programming or designing the software . . . but instead merely claim[s] the resulting
6 systems," the claims are directed to an abstract idea. *See Apple, Inc. v. Ameranth,*
7 *Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016).

8 **2. Step Two: The Claims Lack an Inventive Concept**

9 Where, as here, the claims are directed to an abstract idea under step one, the
10 second step of the *Alice* inquiry becomes whether the elements of the claims,
11 considered "both individually and as an ordered combination," "transform the nature
12 of the claim into a patent-eligible application." *Alice*, 573 U.S. at 217 (citation
13 omitted). This step searches for an "inventive concept . . . sufficient to ensure that the
14 patent in practice amounts to significantly more than a patent upon the ineligible
15 concept itself." *Id.* at 217-18 (citation omitted). The question for the court is, "[w]hat
16 else is there in the claims before us?" *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d
17 1281, 1290 (Fed. Cir. 2018).

18 The answer here is—not much—and certainly not enough to confer an
19 inventive concept upon the claims. The claim limitations do not render them
20 "significantly more" than a claim on granting admission to authorized devices. The
21 claims seek only to take that abstract idea and apply it with generic components such
22 as a "communication circuit," a "controller," and "nodes." But "[w]holly generic
23 computer implementation is not generally the sort of additional feature that provides
24 any practical assurance that the process is more than a drafting effort designed to
25 monopolize the abstract idea itself." *Alice*, 573 U.S. at 224 (internal quotation marks
26 and modifications omitted). Claims tied to general purpose computing equipment and
27 not to novel hardware cannot satisfy *Alice* Step 2 because such equipment lacks the
28 required inventive characteristics. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709,

1 716 (Fed. Cir. 2014) (finding claims patent ineligible where they were “not tied to
2 any particular novel machine or apparatus, only a general purpose computer.”). That
3 is exactly the case here:

- 4 • The claimed “communication circuit” is just that—a generic circuit for
5 communication. The specification does not further describe a “communication
6 circuit.”
- 7 • The claimed “transceiver” is simply a transceiver, which is a piece of
8 well-known communications equipment. The specification does not describe
9 any specialized transceiver used for the invention.
- 10 • The claimed “controller” is also generic. The only mention of a
11 controller in the specification describes it as any “network processor/CPU,”
12 “such as a host microprocessor, digital signal processor, or other known digital
13 controllers.” ’566 patent at 22:30-35.
- 14 • The claimed “new node” is any generic coaxial equipment, including
15 “cable converter boxes, televisions, video monitors, cable modems, cable
16 phones, audio video receivers, set-top boxes (STBs), and video game
17 consoles.” *Id.* at 1:48-52.

18 Indeed, nearly any computer device in the coaxial technological environment can be
19 a “node,” which contains a “communication circuit,” “transceiver,” and “controller.”
20 *See, e.g., Alice*, 573 F.3d at 226 (describing “communications controller” as “purely
21 functional and generic”); *see also Weisner v. Google LLC*, 51 F.4th 1073, 1083-84
22 (Fed. Cir. 2022) (stating that “the specification describes the components and features
23 listed in the claims generically, supporting the conclusion that these components and
24 features are conventional, not inventive concepts in the patents.”).

25 Further, these general-purpose components are used for generic, commonplace
26 functions. The specification explains that the goal of the invention is to have a
27 network where a controller controls admission of new nodes, each node can
28 communicate with each other node, and the nodes periodically adjust modulation and

1 other transmission parameters between each other. '566 patent at 4:23-42. Yet the
2 challenged claims recite none of these features. Instead, the claims recite mere
3 functional limitations of (1) transmitting and receiving messages; (2) performing an
4 “admission procedure” if new devices are authorized; (3) probing the communication
5 link to the new device; and (4) adapting transmission parameters. *E.g., id.* at claim
6 11. But transmitting and receiving messages between nodes in a network is simply
7 “siting the ineligible concept in a particular technological environment.” *Internet*
8 *Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1349 (Fed. Cir. 2015). The
9 recited “admission procedure” also contains no details about how the admission
10 procedure is performed. Likewise, the recited “probing” element is generic and
11 contains no explanation of how the communication link is probed. And though the
12 claims recite adapting “transmission parameters,” they “fail to specify precisely what
13 the parameters are,” or how they are “adapted.” *See Hawk Tech.*, 60 F.4th at 1358.

14 In fact, the “probing” and “adapting” claim elements are analogous to those of
15 a claim that the Federal Circuit held invalid in *NetSoc, LLC v. Match Group, LLC*,
16 838 F. App'x 544, 549 (Fed. Cir. 2020). In *NetSoc*, the Federal Circuit held that
17 claims directed to a social networking system that (1) tracked a “response time” of
18 participants who received a message from a user and (2) updated the rating associated
19 with the participants based on the tracked response time did not represent a
20 technological improvement rendering the claims non-abstract. *Id.* at 548-49.
21 Similarly, the claim elements here simply “probe” the communication link between
22 two nodes and use the result to “adapt” parameters associated with that link.

23 And examining the claims in an ordered combination does not add an inventive
24 concept. Even when viewed as a whole, the additional elements “add nothing that is
25 not already present when the steps are considered separately.” *Alice*, 573 U.S. at 225
26 (citation omitted). Instead, the claims recite a generic process for authorization and
27 admission of new devices into a CCN network without any restriction on how such
28 authorization and admission is performed, and no novel requirement on the type of

1 components used. Even when considering the “probing” and “adapting” elements as
2 part of the admission procedure, these, too, are generic. Probing communication links
3 to determine characteristics of the link and adjusting transmission parameters
4 accordingly are well-known, generic functions performed by any generic
5 communication equipment. Indeed, the specification describes the “probe packet”
6 used for the probing function as a “prevalent packet type,” and the claimed invention
7 simply applies this concept to the CCN technological field. ’566 patent at 8:18-44.
8 And the only specific “transmission parameter” discussed in the specification—pre-
9 coding modulation—is also just a generic term with multiple known solutions. *Id.* at
10 7:8-28 (describing OFDM and other known pre-coding techniques). The fact that
11 these well-known communication techniques are used with a CCN does not change
12 the result—“the prohibition against patenting abstract ideas cannot be circumvented
13 by attempting to limit the use of the idea to a particular technological environment.”
14 *Alice*, 573 U.S. at 222-23 (citing *Bilski*, 561 U.S. at 610-611).

15 Accordingly, Entropic fails to state a claim upon which relief can be granted,
16 and DISH respectfully requests that the Court grant its motion and dismiss Count VI
17 of Entropic’s Complaint with prejudice.

18 **B. The ’910 Patent’s Claims Are Patent Ineligible**

19 The claims of the ’910 patent are also patent ineligible under § 101 for being
20 directed to an abstract idea (receiving, aggregating, and transmitting data) and lack
21 any inventive concepts that take them beyond the abstract idea itself.

22 **1. Step One: The Claims Are Directed to an Abstract Idea**

23 The claims of the ’910 patent are directed to the abstract idea of receiving,
24 aggregating, and transmitting data, for at least three reasons. First, the claims are
25 analogous to claims previously held invalid for being directed to an abstract idea.
26 *Enfish*, 822 F.3d at 1334 (courts begin *Alice* Step 1 by “compar[ing] claims at issue
27 to those claims already found to be directed to an abstract idea in previous cases.”).
28 Second, the claims describe the purported invention in broad, generic, functional

1 terms, but fail to identify how those ends are achieved, with the specification being
2 no clearer. And third, the claims are akin to a long-standing human activity—mail
3 delivery through the post office. Each reason is addressed below.

4 First, the claims challenged here are analogous to a claim found to be directed
5 to an abstract idea in *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*.
6 874 F.3d 1329, 1337 (Fed. Cir. 2017). There, the claim recited a “method for
7 forwarding [] information” in a “communications network” that required “processing
8 one or more streams of audio or visual information into one or more streams of
9 packets for forwarding over the communications network” and “forwarding the digital
10 packets to the users in response to information selection signals received from the
11 users,” along with additional steps for monitoring and logging the receipt of the
12 packets. *Id.* at 1335. The Federal Circuit agreed that the claim was directed to the
13 abstract idea of “(1) sending information, (2) directing the sent information, (3)
14 monitoring the receipt of the sent information, and (4) accumulating records about
15 receipt of the sent information.” *Id.* at 1337. Here, the claims of the ’910 patent
16 similarly recite processing, forwarding, and accumulating information. And, like the
17 claim in *Two-Way Media*, forwarding occurs in response to specific signals (*i.e.*, the
18 “same aggregation identifier”).

19 The second reason the claims of the ’910 patent are directed to an abstract idea
20 is because each claim describes the purported invention in broad, generic, functional
21 terms but fails to identify how those ends are achieved. The specification is no clearer.
22 *See RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017)
23 (“Generalized steps to be performed on a computer using conventional computer
24 activity are abstract.”). The preambles make clear that each claim is directed to
25 “transmitting digital data over a network,” and each claim recites the result-based
26 functions of (1) receiving packets, (2) identifying packets with the same aggregation
27 identifier, (3) forming an aggregate packet, and (4) transmitting (*i.e.*, forwarding) the
28 aggregated packet to a destination. Moreover, the specification explains that

1 “[t]ransceiver 27 can be any device that transmits and receives digital data” (’910
2 patent at 3:14–15), the “packet data units” are simply “Ethernet packets” (*id.* at 3:44–
3 45), and the claimed method of “aggregating packets” using a “packet aggregation
4 module” “can be performed by hardware, or any combination of hardware and
5 software,” including a generic processor and memory (*id.* at 5:38–45).

6 Finally, the third reason the claims of the ’910 patent are directed to an abstract
7 idea is because each is akin to a long-standing human activity—namely, mail delivery
8 through the post office. *See Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307,
9 1317 (Fed. Cir. 2016) (finding an email processing software program to be abstract
10 through comparison to a “brick-and-mortar” post office). Just as the claims here
11 require receiving a plurality of packet data units, a mail carrier receives a plurality of
12 mail pieces. And just as the claims here require aggregating based on identifying the
13 same aggregation identifier, a mail carrier aggregates several pieces of mail destined
14 for the same location by identifying the same address on each. A postal worker then
15 forms an aggregate packet (a bundle of mail) by grouping the mail that is addressed
16 with the same aggregation identifier (the address) before delivering that packet to the
17 destination (the specific location).⁶ The claims are thus directed to an abstract idea.

18 **2. Step Two: The Claims Lack an Inventive Concept**

19 Nothing in the ’910 patent claims adds any inventive concept, nor does
20 Entropic’s complaint attempt to plead any facts to the contrary. *See* Dkt. 1, ¶ 403.
21 Because the claims of the ’910 patent are directed to the abstract idea of receiving,
22 aggregating, and transmitting data, the claims are ineligible unless they add an
23 “inventive concept” such that the patent amounts to significantly more than a patent
24 on the ineligible idea itself. *Alice*, 573 U.S. at 222. Transformation of an abstract

25
26 ⁶ The limitations in claims 1 and 2 regarding comparing checksums do not change the
27 analysis. As discussed, the use of a checksum (*i.e.*, a value representing the sum of
28 the correct digits in a piece of transmitted data) was known in the art, and comparing
checksums to ensure data integrity is akin to a postal worker comparing the cities
and/or zip codes written on each piece of mail to ensure the aggregated bundle was
delivered to the right location.

1 idea into a patent-eligible claim “requires more than simply stating the abstract idea
2 while adding the words ‘apply it.’” *Bridge & Post Inc. v. Verizon Commc’ns, Inc.*,
3 778 F. App’x 882, 891 (Fed. Cir. 2019) (citing *Alice*, 573 U.S. at 222). Instead, the
4 claim “must include ‘additional features’ to ensure ‘that the [claim] is more than a
5 drafting effort designed to monopolize the [abstract idea].’” *Alice*, 573 U.S. at 221
6 (citing *Mayo*, 566 U.S. at 77-78). The additional features must be more than an
7 industry-known “well-understood, routine, conventional activity.” *Mayo*, 566 U.S. at
8 79.

9 The ’910 patent claims fail under *Alice* Step 2 because they “merely invoke[]
10 well-understood, routine, conventional components and activity to apply the abstract
11 idea identified previously.” *Elec. Commc’n Techs., LLC v. ShoppersChoice.com, LLC*,
12 958 F.3d 1178, 1183 (Fed. Cir. 2020). System claim 3, which is representative
13 of all three claims, requires only two generic components, each performing two
14 generic functions. The first component is “a transceiver adapted to [1] receive a
15 plurality of packet data units” and [2] “transmit the aggregate packet to at least one
16 destination node.” This claimed system simply invokes a conventional transceiver
17 for its conventional purpose. As the patent explains, “[t]ransceiver 27 can be any
18 device that transmits and receives digital data.” ’910 patent at 3:14-15. The second
19 claimed component is “a packet aggregation module for [1] identifying at least two
20 of the plurality of packet data units that have a same destination node . . . by
21 identifying a same aggregation identifier” and [2] “forming an aggregate packet from
22 the at least two of the plurality of packet data units.” At best, the specification
23 confirms the module’s conventionality. It states that the “functionality of these
24 modules . . . can be implemented by any combination of hardware and software,” that
25 could include a processor that “may be any type of general or specific purpose
26 processor” and memory that may be “any [] type of computer readable medium.” *Id.*
27 at 3:13-20, 3:29-35.

1 Other courts have found that similarly claimed functionality is not an inventive
2 concept. In *Intell. Ventures I LLC v. Symantec Corp.*, the abstract claim called for
3 receiving data, determining whether the received data matched certain characteristics,
4 and outputting data based on the determining step. 838 F.3d at 1313. None of these
5 steps provided an inventive concept because the claim performed “generic computer
6 functions.” *Id.* at 1315. The *Voip-Pal.Com, Inc. v. Apple Inc.* court followed this
7 same logic for a claim involving call routing, which facilitated communication in a
8 system having multiple nodes. 375 F. Supp. 3d 1110, 1137. The claims here fail for
9 the same reasons. They also facilitate communication by receiving data, determining
10 if that data has certain characteristics (*i.e.*, a same aggregation identifier), and
11 outputting data based on that determination (*i.e.*, outputting an aggregate packet to a
12 destination node).

13 The ordered combination of the claimed elements also does not yield an
14 inventive concept. In *BASCOM*, the Federal Circuit held that “an inventive concept
15 can be found in the nonconventional and non-generic arrangement of known,
16 conventional pieces.” 827 F.3d at 1350. But here, the arrangement of the claim
17 elements is conventional, as evidenced by a similar claim invalidated in *Two-Way*
18 *Media*. The claim there was directed to “transmitting message packets over a
19 communications network” and contained the three ordered steps of “first processing
20 the data, then routing it, [and] controlling it” 874 F.3d at 1334, 39. In finding
21 this claim failed *Alice* Step 2, the Federal Circuit referred to this claim as a
22 “conventional ordering of steps . . . with conventional technology to achieve its
23 desired result.” *Id.*

24 The claims here recite the same three ordered steps. First, data is processed by
25 receiving a plurality of packet data units and identifying at least two of the plurality
26 of packet data units that have a same destination node. Second, the data is routed by
27 forming an aggregate packet from the at least two of the plurality of packet data units
28 by identifying the same aggregation identifier. Third, the data is controlled by

1 transmitting the aggregate packet to at least one destination node. This conventional
2 ordering of steps thus fails just like the claim in *Two-Way Media*.

3 All three claims of the '910 patent thus fail *Alice* Step 2 and should be deemed
4 ineligible. Accordingly, Entropic fails to state a claim upon which relief can be
5 granted, and DISH respectfully requests that the Court grant its motion and dismiss
6 Count X of Entropic's Complaint with prejudice.

7 **V. CONCLUSION**

8 For the foregoing reasons, DISH respectfully requests that the Court find the
9 '566 and '910 patents invalid under 35 U.S.C. § 101 for claiming patent-ineligible
10 subject matter and dismiss Counts VI and X of the Complaint with prejudice.

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